This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:** 

Claim 1. (Currently Amended):

A hierarchical network system comprising:

a first plurality of peer devices, each of the first plurality of peer devices not being

<u>directly</u> coupled to any other of the first plurality of peer devices;

a first network server device directly coupled to each of the first plurality of peer devices,

the first network server <u>device</u> to manage and maintain a first name-to-address resolution

index that includes a list of addresses for each of the first plurality of peer devices, the

first network server <u>device</u> configured to respond to requests for a peer device addresses

of the first plurality of peer devices by querying the first name-to-address index;

a second plurality of peer devices, each of the second plurality of peer devices not being

<u>directly</u> coupled to any other of the first and second pluralities of peer devices;

a second network server <u>device directly</u> coupled to each of the second plurality of peer

devices and to the first network server, server device, the second network server device to

manage and maintain a second name-to-address resolution index that includes a list of

addresses for each of the second plurality of peer devices, the second network server

<u>device</u> configured to respond to a request for a peer device address of one of the first

plurality of peer devices by querying the first network server <u>device</u> such that the second

network server <u>device</u> responds to the request with the peer device address of the one of

the first plurality of peer devices as though the request was for a peer device address of

one of the second plurality of peer devices.

Claim 2. (Currently Amended):

The system of claim 1 wherein the first and second network servers server devices are at

equivalent hierarchical levels.

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# Claim 3. (Currently Amended):

The system of claim 1 wherein the first and second network servers server devices have a common zone relationship.

#### Claim 4. (Currently Amended):

The system of claim 3 wherein the second network server server devices requires access authorization from the first network server device before a common zone is established. established to permit address discovery of the first plurality of peer devices.

## Claim 5. (Currently Amended):

The system of claim 3 further comprising:

a third plurality of peer devices, each of the third plurality of peer devices not being directly coupled to any other of the first, second, and third pluralities of peer devices; and a third network server device directly coupled to each of the third plurality of peer devices and to the second network server, server device, the third network server device to manage and maintain a third name-to-address resolution index that includes a list of addresses for each of the third plurality of peer devices, the third network server device configured to respond to the request for the peer device address of the one of the first plurality of peer devices by querying the second network server device such that the third network server device responds to the request with the peer device address of the one of the first plurality of peer devices as though the request was for a peer device address of one of the third plurality of peer devices.

# Claim 6. (Currently Amended):

The system of claim 5 wherein the second network server device is also configured to query the third name-to-address index such that the second network server device responds to a request for a peer device address of one of the third plurality of peer devices as though the request was for a peer device address of one of the second plurality of peer devices.

The system of claim 1 wherein the first network server <u>device</u> is also configured to query the second name-to-address index such that the first network server <u>device</u> responds to a request for a peer device address of one of the second plurality of peer devices as though the request was for a peer device address of one of the first plurality of peer devices.

Claim 8. (Currently Amended):

A hierarchical network server device comprising:

an input interface to receive messages from a plurality of peer devices, each of the plurality of peer devices being <u>directly</u> coupled to the <u>hierarchical network server device</u> <u>server</u>-and not being <u>directly</u> coupled to any other of the plurality of peer devices; and a processing unit coupled to the input interface, the processing unit to manage communications to the plurality of connected peer devices and configured to receive and respond to name-to-address resolution requests from the plurality of connected peer devices, the processing unit including a name-to-address index that maintains a list of addresses for each of the plurality of connected peer devices, the processing unit configured to query a second name-to-address index included on a second server device configured to manage a second plurality of connected peer devices, the second name-to-address index maintaining a list of addresses for each of the second plurality of connected peer devices, such that the <u>hierarchical network</u> server device responds to a request for a peer device address of one of the second plurality of connected peer devices as though the request was for a peer device address of one of the first plurality of connected peer devices.

Claim 9. (Currently Amended):

The <u>hierarchical network server</u> device of claim 8 further comprising:

an output interface to couple the processing unit to the at least one peer on the first network.

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# Claim 10. (Currently Amended):

The hierarchical network server device of claim 8 wherein the processing unit responds to a name-to-address resolution request by sending the requested address if it is found, and sending an address not found reply if the address is not found.

### Claim 11. (Currently Amended):

The hierarchical network server device of claim 8 being at an equivalent hierarchical level as the other network management device it queries if it is unable to resolve the requested address.

### Claim 12. (Currently Amended):

The hierarchical network server device of claim 8 wherein the hierarchical network server device establishes common zone relationships with the other server devices it queries.

## Claim 13. (Currently Amended):

The hierarchical network server device of claim 12 wherein the hierarchical network server device provides access authorization before establishing a common zone. zone to permit address discovery of the first plurality of peer devices.

### Claim 14. (Currently Amended):

A method of resolving a request for a peer address in a hierarchical network, the method comprising:

establishing a common zone relationship for name-to-address resolution sharing between a first network including a first server device and a first plurality of peer devices directly coupled to the first server device and not directly coupled to any other of the first plurality of peer devices, and a second network including a second server device and a second plurality of peer devices directly coupled to the second server device and not directly coupled to any other of the first and second pluralities of peer devices, each server device managing and maintaining a list of addresses for the plurality of peer devices directly coupled to the server; server device;

receiving a request at the first server <u>device</u> from a first peer included in the first plurality of peer devices for the address of a second peer included in the second plurality of peer devices:

checking the list of addresses maintained by the first server <u>device</u> for the requested address of the second peer;

checking the list of addresses maintained by the second server <u>device</u> without relying on a higher level server <u>device</u> if the requested address is not found in the list of addresses maintained by the first <u>server</u>; <u>server device</u>; and

returning the requested address from the first server <u>device</u> to the first peer if the address is found, as though the request was for a peer device address of one of the first plurality of peer devices.

## Claim 15. (Original):

The method of claim 14 further comprising:

returning an indication that the requested address was not found to the first peer if the requested address is not found.

#### Claim 16. (Currently Amended):

The method of claim 14 wherein establishing a common zone relationship requires the second network server <u>device</u> to provide access authorization to the first network server <u>device</u> before a common zone is <u>established</u>. <u>established to permit address discovery of the first plurality of peer devices</u>.

### Claim 17. (Currently Amended):

The method of claim 14 wherein there is no common zone relationship between the first server <u>device</u> and the second <u>server</u>, <u>server device</u>, and derivative common zone name-to-address resolution is selectively permitted by a server <u>device</u> having common zone relationships with the first server device and the second <del>server</del>, server device.

# Claim 18. (Currently Amended):

A machine-readable medium comprising at least one instruction to resolve a peer address in a hierarchical network, which when executed by a processing unit, causes the processing unit to perform operations comprising:

establishing a common zone relationship for name-to-address resolution sharing between a first network including a first server <u>device</u> and a first plurality of peer devices <u>directly</u> coupled to the first server <u>device</u> and not <u>directly</u> coupled to any other of the first plurality of peer devices, and a second network including a second server <u>device</u> and a second plurality of peer devices <u>directly</u> coupled to the second server <u>device</u> and not <u>directly</u> coupled to any other of the first and second pluralities of peer devices, each server <u>device</u> managing and maintaining a list of addresses for the plurality of peer devices directly coupled to the <u>server</u>; server device;

receiving a request at the first server <u>device</u> from a first peer included in the first plurality of peer devices for the address of a second peer included in the second plurality of peer devices;

checking a the list of addresses maintained by the first server <u>device</u> for the requested address of the second peer;

checking the list of addresses maintained by the second server <u>device</u> without relying on a higher level server <u>device</u> if the requested address is not found in the list of addresses maintained by the first <u>server</u>; <u>server device</u>; and

returning the requested address from the first server <u>device</u> to the first peer if the address is found, as though the request was for a peer device address of one of the first plurality of peer devices.

### Claim 19. (Original):

The machine-readable medium of claim 18 further comprising:

returning an indication that the requested address was not found to the first peer if the requested address is not found.

Claim 20. (Currently Amended):

The machine-readable medium of claim 18 wherein establishing a common zone relationship

requires the second network server device to provide access authorization to the first network

server device before a common zone is established. established to permit address discovery

of the first plurality of peer devices.

Claim 21. (Currently Amended):

The machine-readable medium of claim 18 wherein there is no common zone relationship

between the first server <u>device</u> and the second <u>server</u>, <u>server device</u>, and derivative common

zone name-to-address resolution is selectively permitted by a server device having common

zone relationships with the first server <u>device</u> and the second <u>server</u>. <u>server device</u>.